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CLAIMS:

- Sub 37
1. A rail car including:  
a chassis adapted to travel on a track;  
a longitudinally extending container having a closeable opening for loading or  
5 unloading metropolitan waste material through at least one longitudinal end thereof;  
means to enable interconnected displacement of the container relative to the  
chassis to permit loading via the closeable opening; and  
the container being adapted to stably withstand the compression of the waste  
material within the container.
- 10 2. A rail car according to claim 1 wherein the means to enable interconnected  
displacement of the container relative to the chassis is a bearing between the container  
and chassis such that the container is selectively rotatable relative to the chassis.
3. A rail car according to claim 1 or claim 2 wherein both of the longitudinal ends  
have a closeable opening for loading or unloading waste material.
- 15 4. A materials handling system including:  
a rail car having a chassis adapted to travel on a track;  
a longitudinally extending container for compacted material, the container having a  
closeable opening for loading or unloading material through at least one longitudinal end  
thereof, and means to enable interconnected displacement of the container relative to the  
20 chassis to permit in situ loading via the closeable opening;  
a loading means at a materials collection point for loading material into the  
container through the opening;  
a track for the rail car extending from the collection point to a remote distribution  
point; and

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an unloading means at the distribution point for unloading material from the container through the opening; wherein,

the container is displaced relative to the chassis to operatively engage the loading means and again displaced when unloading the material.

- 5 5. A materials handling system according to claim 4 wherein the means to enable interconnected displacement of the container relative to the chassis is a bearing between the container and the chassis such that the container is selectively rotatable relative to the chassis.
6. A materials handling system according to claim 4 wherein the material is loaded  
10 and unloaded through the closeable opening.
7. A materials handling system according to claim 4 wherein the material is metropolitan waste and the collection point is a regional transfer station wherein the loading means includes a compactor for compressing the waste.
8. A materials handling system according to claim 7 wherein stabilising means are  
15 provided to support and stabilise the rail car against forces generated by the compactor.
9. A materials handling system according to claim 4 wherein the distribution point is adjacent a land fill site and the unloading means is a hydraulically actuated telescopic ram capable of engaging the compressed waste through one opening in the container and pushing it out the opening in the other end of the container.
- 20 10. A materials handling system according to claim 9 wherein the telescopic ram pushes the compressed waste out of the other end of the container into the trailer of a heavy haulage truck.

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11. A material handling system according to claim 10 wherein the trailer of the heavy haulage truck is provided with a conveyor means along its floor for unloading the waste into the land fill area.
- 5 12. A method of transporting material between a collection point and a distribution point by rail using a rail car having:
- a chassis adapted to travel on a track;
  - a longitudinally extending container having a closeable opening for loading or unloading material through at least one longitudinal end thereof; and
- 10 means to permit interconnected displacement of the container relative to the chassis to permit in situ loading via the closeable opening, said method including:
- providing loading means at the collection point;
  - displacing the container relative to the chassis to operatively engage the loading means and loading material through the opening;
- 15 returning the container to its original position relative to the chassis and transporting the rail car along the track to the distribution point;
- providing an unloading means at the distribution point; and
  - displacing the container relative to the chassis to operatively engage the unloading means and unloading the material.
- 20 13. A method according to claim 12 wherein the means to enable interconnected displacement of the container relative to the chassis is a bearing between the container and the chassis such that the container is selectively rotatable relative to the chassis.

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14. A method according to claim 12 wherein the material is loaded and unloaded through the closeable opening.
15. A method according to claim 12 wherein the material is metropolitan waste and the collection point is a regional transfer station wherein the loading means includes a compactor for compressing the waste.
16. A method according to claim 15 wherein stabilising means are provided to support and stabilise the rail car against forces generated by the compactor.
17. A method according to claim 12 wherein the distribution point is adjacent a land fill site and the unloading means is a hydraulically actuated telescopic ram capable of engaging the compressed waste through one opening in the container and pushing it out the opening in the other end of the container.
18. A method according to claim 17 wherein the telescopic ram pushes the compressed waste out of the other end of the container into the trailer of a heavy haulage truck.
19. A method according to claim 17 wherein the trailer of the heavy haulage truck is provided with a conveyor means along its floor for unloading the waste into the land fill area.

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